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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Risto Nikander

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EXAMINER

LAZORCIK, JASON L

ART UNIT

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1791

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02/19/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,939	Applicant(s) NIKANDER, RISTO	
	Examiner JASON L. LAZORCIK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-7, 9, and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

Applicants reply dated November 9, 2009 amends claims 1, 3, and 6 with all other claims presented in identical form as in the reply dated January 30, 2009.

Claims 2, 4, and 8 have been cancelled by Applicant, and therefore Claims 1, 3, 5-7, and 9-13 are pending in the Application

Claims 10-11 and 12 have been withdrawn from consideration pursuant to the restriction election requirement dated September 13, 2007 and made FINAL in the Official Action dated January 22, 2008. The noted claims are not further treated on the merits.

Claims 1, 3, 5-7, 9, and 13 are pending for prosecution on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 5-7, 9, and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hoetzi (US 6,505,483 B1) as evidenced by Hoetzi (US 5,320,329).

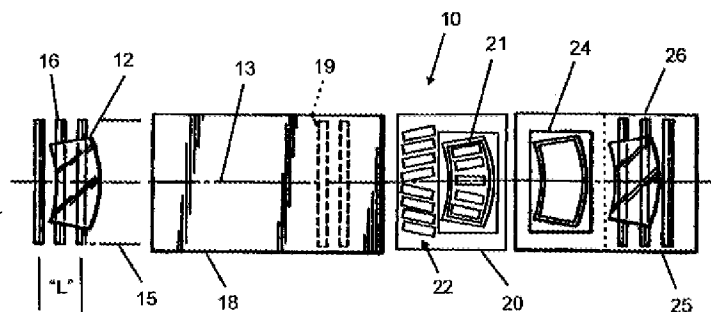
Applicant is advised that the following grounds of rejection are substantially equivalent to that issued in the Official Actions dated January 22, 2008 , October 30, 2008, and May 8, 2009. Any distinctions between the instant Official Action and that previously presented have been incorporated to address new limitations presented in Applicants most recent reply.

With particular reference to the instant figure 1, Hoetzi '483 teaches a method for transferring a heat softened glass sheet from a rotating roller bed (19) in an oven (18) to a bending ring mold (80 – see fig 8) in a press station (21). The transfer is conducted at a "a horizontal height level" or "without vertical oscillations" (Column 4, lines 33-35) from a position in the oven where the glass is supported by the rollers to a position in the region of the furnace exit wherein the roller support is terminated and the sheet is thereafter gradually supported from below by dynamic air support from pressure pads directed against the bottom surface of the glass sheet (Column 13, lines 24-52). Said pressure pads are construed to read upon the arrangement of various nozzles which

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are located at a distance from the glass sheet and which direct air flow against the glass sheet thereby producing glass sheet supporting air jets as recited in Claim 1.

Regarding the transfer process, the '483 reference teaches that "when the glass sheet reaches the furnace exit, a glass run out section of the roll drive goes to high speed and this causes the glass to transfer to dumper pad(s) (82)" (Column 13, lines 25-28). The Examiner construes the latter excerpt as an indication that there exists at least a nominal transfer force between the last one of said rotating rollers (19) and the glass sheet during the transfer of said sheet from the roller bed to the bending ring.

**FIG. 1**

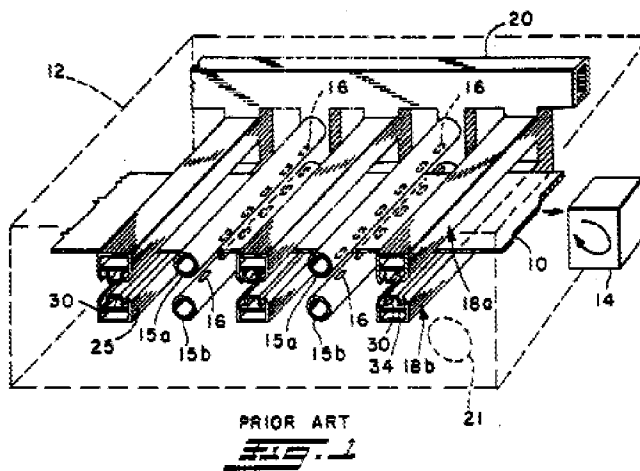
In the '483 embodiment, the glass sheet is supported by and guided downstream on an air cushion formed by directing an air flow onto a bottom surface of the glass sheet. Once the glass sheet arrives at the location of a bending ring, conveyance of

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the glass sheet is stopped by a "conventional guide/stop drive arrangement". The suspended glass sheet is subsequently lowered into contact with the ring mold by "lowering the pressure pads" (Column 13, lines 53-67) as a nozzle system and/or by reducing the air flow.

Directing air jets onto both top and bottom surfaces of glass sheet at last one of the rotating rollers is explicitly contemplated in '483 patent:

The '483 reference teaches a preferred embodiment employing a lower pressure pad configuration wherein the pressure pads are directed only against the bottom surface of the glass sheet. The reference clearly indicates that "the pressure pad configuration illustrated in FIG. 3 is well known, but that it is to be understood that this invention is not limited to any specific pressure pad configuration" (column 7, lines 24-26). The reference continues by indicating that several of the pad configurations shown in the '329 patent may be used in the present invention. To this end, the patent explicitly contemplates providing "a pressure pad beneath the strip and an opposing pressure pad above the strip such as shown in FIG. 1 of the '329 patent" (Column 7, line 24-33). The referenced upper and lower pressure pad arrangement of the '329 patent is provided in the following excerpt image.



Substitution of the lower pressure pad arrangement depicted '483 patent for a pressure pad arrangement comprising opposing upper and lower pressure pads (e.g. bottom air flow means and upper elevation stop) similar to that of the '329 patent is explicitly contemplated in the prior art. Such an upper pressure pad arrangement is understood to provide for claimed "elevation stop". In addition, the upper pressure pads are also understood to apply a force directed upon the top surface of the glass sheet.

Specifically, this applied upper force acts upon the top surface of the glass sheet effectively pressing down upon the sheet "at a location of a last one (of) said rotating rollers". Since this upper force acts in opposition to the force applied by the lower pressure pads, the '329 upper pressure pad arrangement is understood to inherently improve the contact force between the roller bed and the glass sheet when all other process variables are held constant. It follows that the '329 pressure pad arrangement would be expected to improve "the transfer force of the last one of said rotating rollers" when compared to arrangement of the '483 patent which comprises only lower pressure pads. Restated, when all other process variables are held constant, directing an air jet

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upon the upper surface of the glass sheet at a location of a last one of the rotating rollers, as provided in the '329 pressure pad arrangement, would inherently improve the transfer force of said roller compared to not applying the upper air jet.

Should Applicant contest the inherency of the improved transfer force, one of ordinary skill in the art would reasonably be expected to optimize the respective blowing pressure of the '329 upper and lower pressure pads as a routine matter of process optimization. That is, the prior art explicitly contemplates the '483 glass sheet transfer apparatus which employs upper pressure pads of the '329 patent to direct air jets onto the top surface of the glass sheet at a location of a last one of said rotating rollers. One of ordinary skill would be reasonably expected to balance or optimize the force of the upper and lower directed air jets in view of the glass sheet size, thickness, weight and other conventional process variables in order to optimize the sheet transfer process. Absent compelling evidence to the contrary, Applicants claimed improvement in "the transfer force of the last one of said rotating rollers would reasonably have been achieved through routine experimentation over the prior art disclosed process.

With respect to the newly added limitation to independent claim 1, namely the limitations directed to the step of stopping the movement of the glass sheet over the bending ring in claim 1, lines 24-29, Applicant was previously advised that in the '483 apparatus, the glass sheet is supported by and guided downstream on an air cushion formed by directing an air flow in the direction of the glass sheet and stopped at the location of a bending ring a "conventional guide/stop drive arrangement". As further

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noted above, the '329 patent render the use of opposed upper and lower pressure pads as an obvious modification and/or explicitly contemplated embodiment of the Hoetzi '483 disclosed apparatus.

Where upper and lower pressure pads direct air flow towards the glass sheet while said glass sheet is stopped by the conventional guide/stop drive arrangement in the modified Hoetzi '483 apparatus, it is the Examiners assessment that said apparatus includes a step of "blowing air towards the sides of the glass sheet through the elevation stop" in accordance with the process as presently recited in independent claim 1. Additional limitations concerning the horizontal securing of the glass sheet over the bending ring and the step of preventing touching of the glass sheet and the elevation stop has been explicitly or implicitly addressed above.

Applicant is respectfully advised to consider the Examiners comments in the Allowable Subject Matter section below particularly regarding the use of a non-contact glass stopping arrangement in the claimed method and apparatus of claims 1 and 10, respectively. If Applicant feels that telephonic or personal interview would be advantageous in expediting prosecution in this case, Applicant is invited to contact the undersigned Examiner for further discussion.

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection as presented above.

Allowable Subject Matter

Pursuant to the Examiner Initiated Interviews dated February 2, 2010 and February 15, 2010, Applicant was advised that the amendments to claims in Applicants reply dated November 9, 2009 were insufficient to patentably distinguish over the prior art of record.

Applicant was however advised that incorporation of additional structure and/or operational details regarding the glass stopping arrangement (see specifically paragraphs 0029-0030 of the Specification as originally filed) and including all other limitations as presently recited in the method step of claim 1 would read over the prior art of record and may place the application in condition for allowance pending further search and consideration.

Applicant is invited to contact the undersigned Examiner for further discussion on selection of claim language which would successfully overcome the outstanding prior art rejections over Hoetzel.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. LAZORCIK whose telephone number is (571)272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Jason L Lazorcik/
Primary Examiner, Art Unit 1791